MTT-S/AP-S EMCS Joint Chapter Hyderabad Section

Office Bearers 2022

Dr. Sandeep Chaturvedi
Chair

Dr. Prashant Mishra
Vice Chair

Dr. Sulakshana Chilukuri
Secretary

Dr. Runa Kumari
Treasurer

Membership Statistics (as on 11.12.2022)

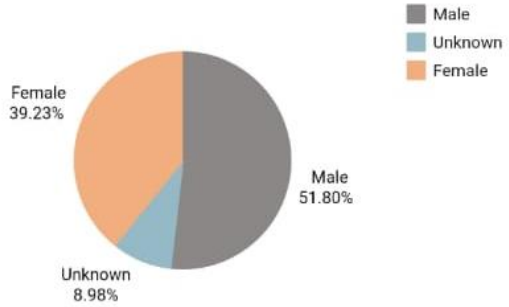
Select OU of your Volunteer Role: Hyderabad Section Jt Chapter, AP03/MTT17...

Region: R10 | Grade: (All) | IEEE Status: Active | HKN Member: (All)

Count by Region and Grade

Region	Council	Section	Grade Category	Grade	Total
R10	India Council	Hyderabad Section	IEEE Grades	Associate Member	1
				Graduate Student Member	53
				Life Fellow	1
				Life Senior	2
				Member	110
				Senior Member	42
				Student Member	513
				Total	722
			Other Grades	Affiliate	1
				Total	1
			Total		723
		Vizag Bay Section	IEEE Grades	Student Member	1
				Total	1

Count by Gender



Total membership: 721

Professional Members(M,SM,LSM,LF,F): 155

Student & graduate Student Members: 566

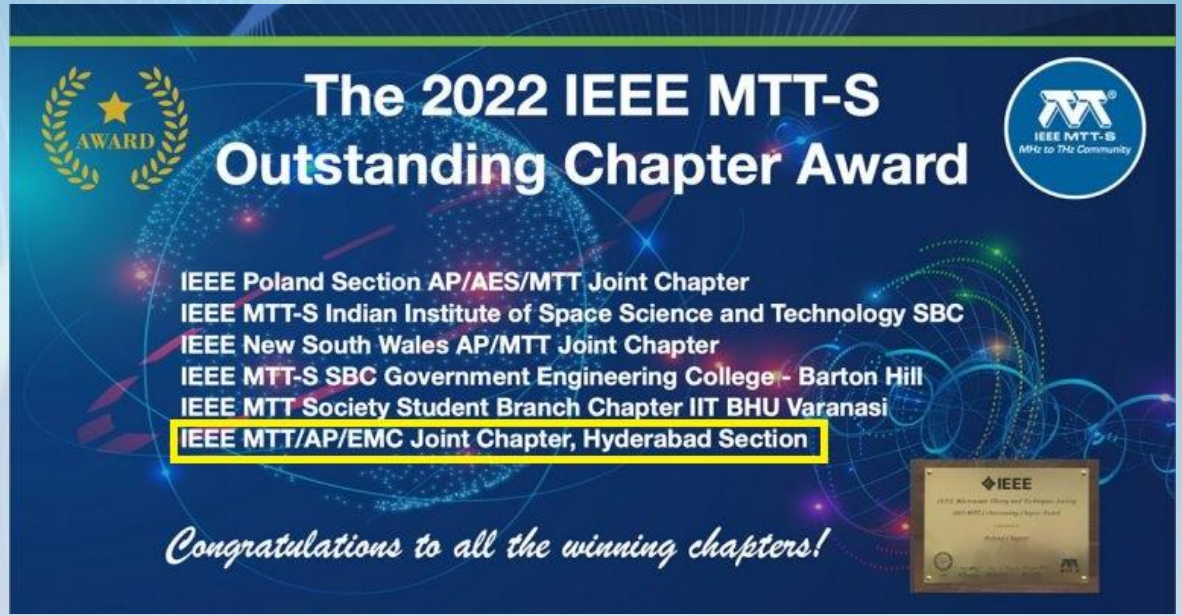
Student Chapter: 10

Female member %: 39.23

Achievements-2021

- Received 2022 IEEE MTT-S Outstanding Chapter Award (for activities carried out during Jan-Dec 2021)

-Nominated for Best Chapter award of IEEE Hyderabad Section for the year 2021



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Chapter Activities during 2022 Summary

Total # Activities in 2022	# Technical Activities	# Non-Technical Activities
19	16 (3 In-person)	3 (1 in-person)

Chapter Activities during 2022

Activity: Chapter Execom Meeting (Virtual)

Date: January 16, 2022

Attendance: 7

Activity: EMCS Distinguished Lecture
Topic: Reverberation Chambers
Date: 20th Februray 2022
Speaker: Mr. Garth D'Abreu, ETS Lindgren, USA
Attendance: 36

Chapter Activities during 2022

Activity: Technical Expert Lecture (Webinar)

Topic: Maxwell's theory for Us: regular folks & Aethreal waves make history: The four scientists who saved James Maxwell's theories

Speaker: Dr. James Rautio, Board Chair, Sonnet Software Inc.

Date: February 26-27, 2022

Attendance: 47

Activity: MTT-S Distinguished Lecture (Webinar)
Topic: Distributed Phased Arrays: Challenges and recent Progress
Date: 12th March 2022
Speaker: Prof. Jeffrey Nanzer, Michigan State University, USA
Attendance: 70

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Chapter Activities during 2022

Activity: Technical Expert Lecture (Webinar)

Topic: Linearizers101: Art of quietening the Communication Power amplifiers

Speaker: Prof Allen Katz, The College of New Jersey, USA and Founder, LINTECH USA

Date: February 26th March, 2022

Attendance: 29

Activity: EMCS Distinguished Lecture (Webinar)

Topic: Unintentional Antennas

Speaker: Ms. Karen Burnham, Principal Scientist, Electromagnetic Applications Inc, USA

Date: 9th April, 2022

Attendance: 72

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Chapter Activities during 2022

Activity: AP-S Distinguished Lecture
Topic: Antenna Technologies for 21st Century Satellite and Ground Communications
Date: 2nd May 2022
Venue: Osmania University ECE auditorium
Speaker: Dr. Sudhakar Rao, Senior Technical Fellow, Northrop Grumman Space Systems, USA
Attendance: 62

Activity: Chapter Execom Interaction With MTT-S MGA Chair Dr. Gautam Chattopadhyay (Virtual)

Date: June 4th, 2022

Attendance: 5

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Chapter Activities during 2022

Activity: MTT-S Distinguished Microwave Lecture (Webinar)

Topic: Fundamentals of RF and MMWAVE Power Amplifier Designs

Speaker: Prof Hua Wang, ETH, Zurich, Switzerland.

Date: 9th June, 2022

Attendance: 63

Activity: AP-S YP Ambassador talk
Topic: Flat panel Antennas for satellite communication on the move
Date: 12th June 2022
Speaker: Dr Miguel Ferrando-Rocher, University of alicante, Spain
Attendance:43

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Chapter Activities during 2022

Activity: MTT-S Expert Lecture (Webinar)

Topic: Enabling Integrated Circuit Technologies for Next Generation Satcom Internet connectivity

Speaker: Dr. Tumay Kanar, Renesas, USA

Date: 9th July, 2022

Attendance: 38

Activity: MTT-S Distinguished Microwave Lecture (Webinar)

Topic: Antenna Booster Technology: from Fundamentals to Applications

Speaker: Prof Jaume Anguera, Univerity of Barselona.

Date: 19th Nov, 2022

Attendance: 37

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Chapter Activities during 2022

Activity: MTT-S Distinguished Microwave Lecture (Webinar)

Topic: Multi function Multi band Reconfigurable High Q filters

Speaker: Prof Raafat Monsour.

Date: 23rd July, 2022

Attendance: 39

Activity: MTT-S Expert Lecture (Webinar)

Topic: How we changed the world with Silicon Based Phased Arrays

Speaker: Prof Gabriel Rebeiz

Date: 24th September, 2022

Attendance: 65

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Chapter Activities during 2022

Activity: JC Bose Memorial Lecture (Hybrid)

Topic: 1. Understanding Synthetic Aperture Radar Technology

2. Silicon Based Millimeter wave Phased Arrays: Fundamentals to Applications

Speaker: 1. Dr. Tapan Misra, Ex-Director, SAC-ISRO.

2. Dr. Bodhisatwa Sadhu, IBM TJ Watson Research Center, USA

Date: 3rd Dec, 2022

Attendance: 40

Activity: INDUSTRY EXPERT TALK ON " “ (In-person)

Topic: RF & microwave applications in aerospace & Defence: challenges and opportunities

Speaker: Dr. Charlotte Blair, Ansys Inc. USA

Date: 9th Dec, 2022

Attendance: 60

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Future Chapter Activities

- AP-S COPE workshop for rural school Children (tentatively planned in Oct 2022)
- MTT SBC Meetup (Oct/Nov)
- Hands on RF measurement workshop (Oct/Nov)
- Hands on Design, Build & Measure workshop on Antennas and Microwave components (Nov/Dec)
- More DL talks by MTT,AP,EMCS Distinguished Speakers (5-6 talks are scheduled in July-Dec timeframe, out of which one would by physical DL)

Hyderabad section MTT SBC Activities

Activities by MTT Hyderabad SBCs During 2022

MJCET MTT SBC:

-MTT-S Distinguished Lecture by Dr. Changzi Li, in collaboration with NIT Silchar and IIT Kharagpur

Date : 13th February 2022

-MTT-S Distinguished Lecture by Dr. Jasmine Grossinger in collaboration with NIT Silchar

Date: 15th March 2022

Matrusri MTT SBC:

-MTT-S Distinguished Lecture by Dr. Changzi Li, in collaboration with NIT Silchar

Date : 27th April, 2022

-1 Week Workshop on THz Technologies (28th Nov. 3rd Dec 2022)

NITW MTT SBC:

-MTT-S Distinguished Lecture by Dr. Changzi Li, in collaboration with MTT-S Bombay Section

Date : 23rdth Mar, 2022

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Activities by MTT Hyderabad SBCs During 2022

VNRVJIET MTT SBC:

MTT SBC Inauguration and Panel Discussion on “Clearing the air on 5G interference on avionics safety and impediments in 5G implementation”

Attendance: 175

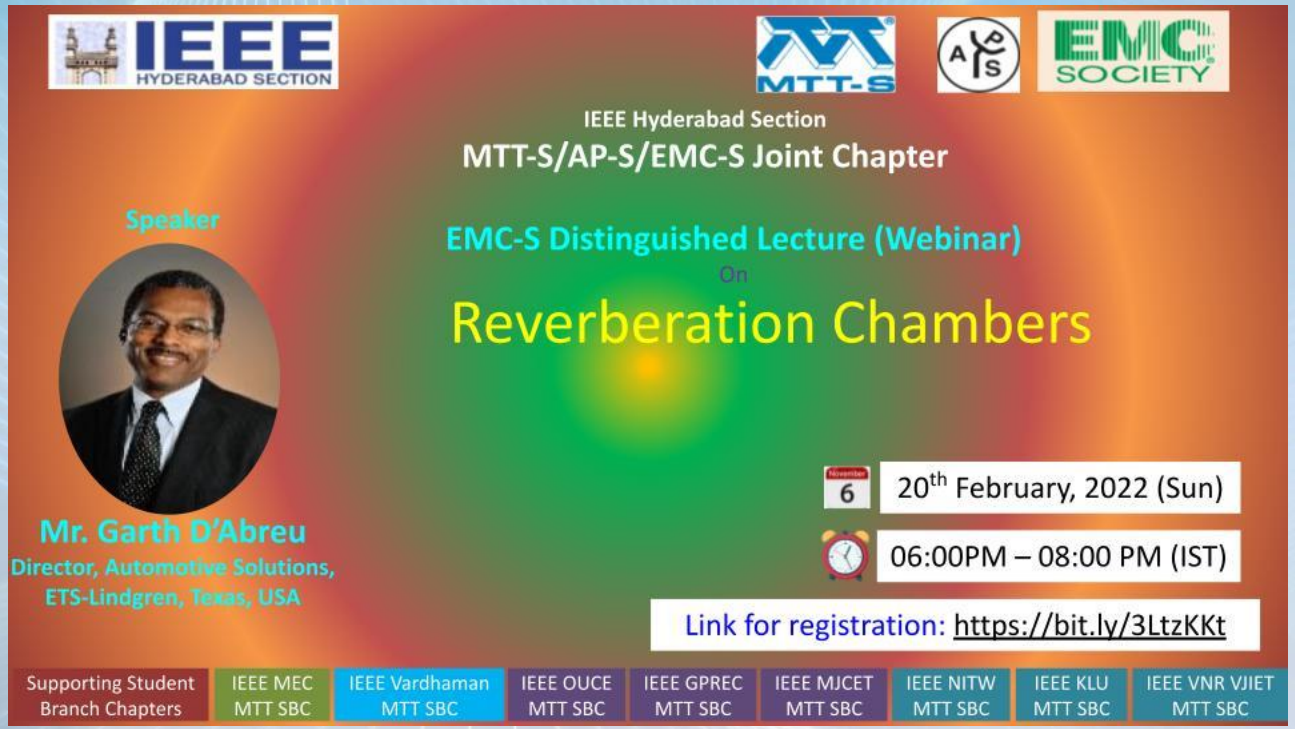
KLEF Vijaywada MTT SBC:

GPREC Kurnool MTT SBC:

Osmania University MTT SBC:

Vardhamaan College of Engineering MTT SBC:

EMCS DL Talk by Mr. Garth D'Abreu



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MTT-S Expert Lecture by Dr. James Rautio

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DML Talk by Prof. Jeffrey Nanzer

IEEE HYDERABAD SECTION

IEEE Hyderabad Section

MTT-S/AP-S/EMC-S Joint Chapter

Speaker

Prof. Jeffrey Nanzer

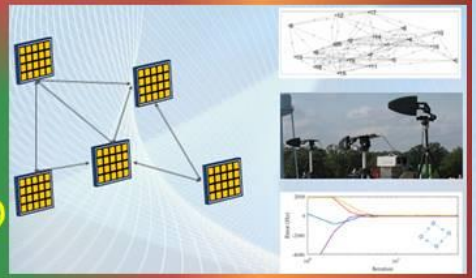
Michigan State University, USA

MTT-S Distinguished Lecture

(Webinar)

On

DISTRIBUTED PHASED ARRAYS: CHALLENGES AND RECENT PROGRESS



6 November

Date: 12th March, 2022 (Sat)

06:30PM – 08:00 PM (IST)

Link for registration: https://bit.ly/35AfSog

Supporting Student Branch Chapters	IEEE MEC MTT SBC	IEEE Vardhaman MTT SBC	IEEE OUCE MTT SBC	IEEE GPREC MTT SBC	IEEE MJCET MTT SBC	IEEE NITW MTT SBC	IEEE KLU MTT SBC	IEEE VNR VJIET MTT SBC

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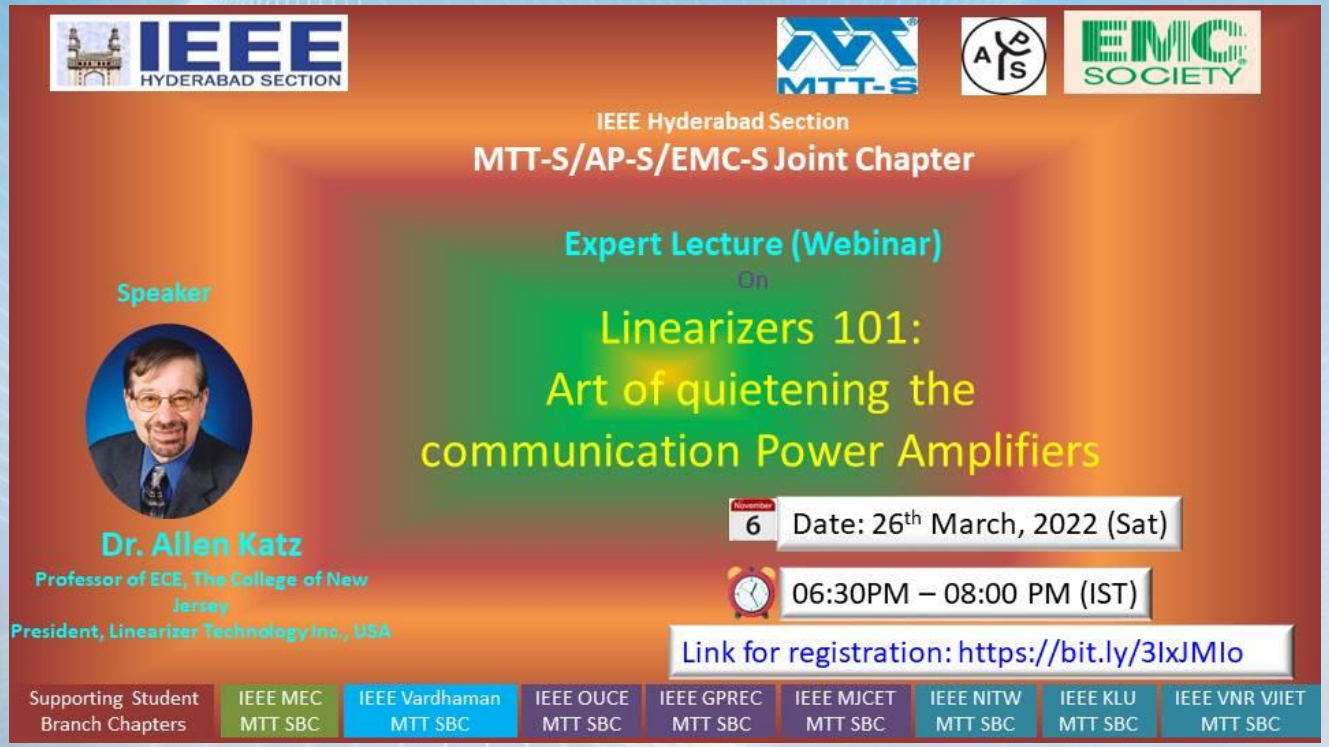
MTT-S Expert Lecture by Dr. Allen Katz



MTT-S MHz to THz Community

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EMCS DL Talk By Ms. Karen Burnham

IEEE HYDERABAD SECTION

IEEE Hyderabad Section

MTT-S/AP-S/EMC-S Joint Chapter

presents

Speaker

Ms. Karen Burnham

Principal Scientist,
Electromagnetic Applications Inc,
Denver, CO, USA

EMC-S Distinguished Lecture (Webinar)

On

Unintentional Antennas

9th April, 2022 (Sat)

06:30PM – 08:00 PM (IST)

Link for registration: https://bit.ly/3609t6w

Event Supported by: IEEE EMC Society Distinguished Lecture Program

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AP-S DL Talk by Dr. Sudhakar Rao

MTT-S MHz to THz Community

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MTT-S DML Talk by Prof. Hua Wang

IEEE HYDERABAD SECTION

IEEE Hyderabad Section

MTT-S/AP-S/EMC-S Joint Chapter

MTT-S Distinguished Microwave Lecture
(Webinar)
On

FUNDAMENTALS OF RF AND MM-WAVE POWER AMPLIFIER DESIGNS

Speaker

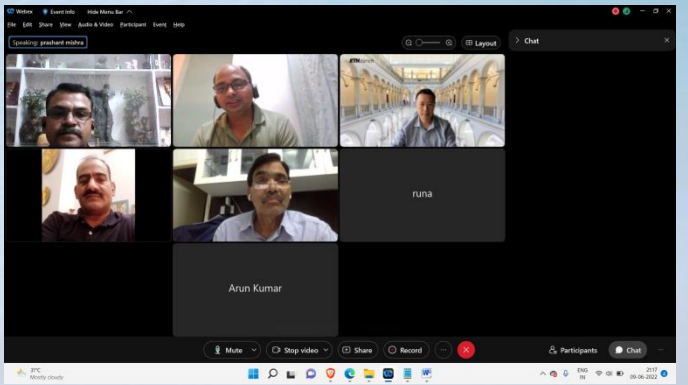
Dr. Hua wang
Professor,
ETH Zürich, Switzerland

09 9th June, 2022 (Thu)

07:00PM – 8:30 PM (IST)

Link for registration: https://bit.ly/3NdPilT

Supporting Student Branch Chapters: IEEE MEC MTT SBC | IEEE OUCE MTT SBC | IEEE Vardhman MTT SBC | IEEE GPREC MTT SBC | IEEE MJCET MTT SBC | IEEE NITW MTT SBC | IEEE VNRVJIET MTT SBC | IEEE KLU MTT SBC



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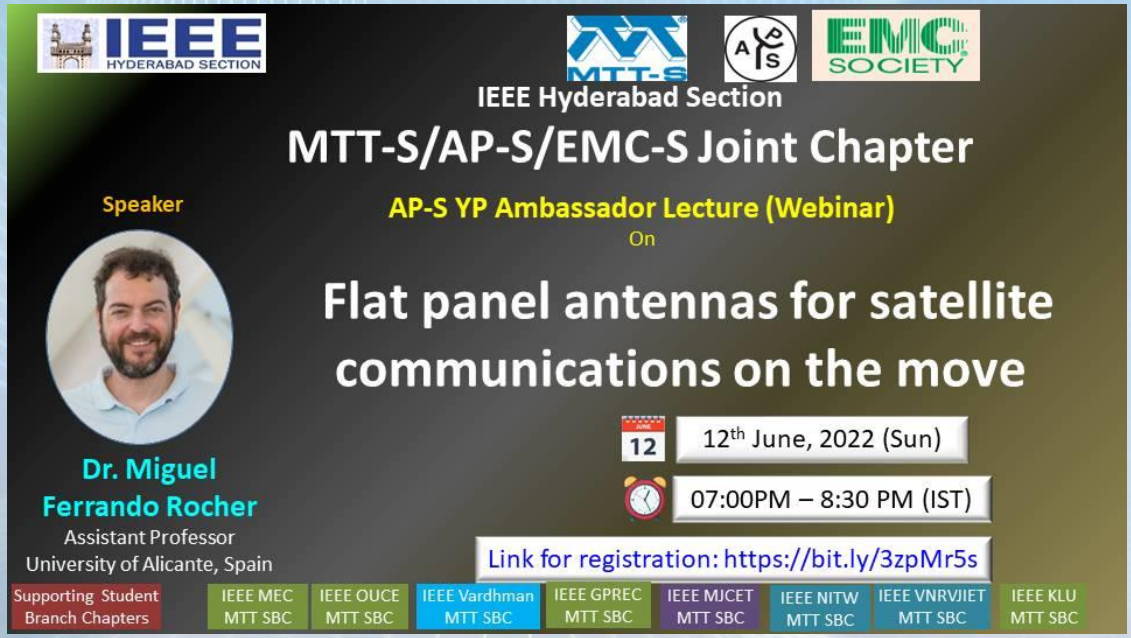
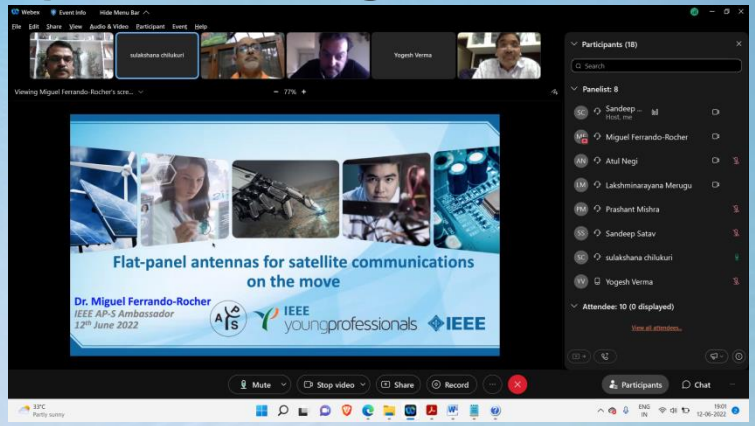
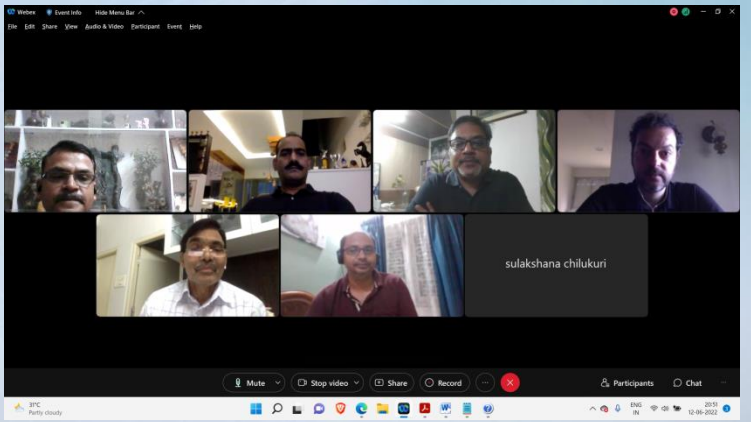
AP-S YP Ambassador Talk by Dr. Miguel Ferrando-Rocher







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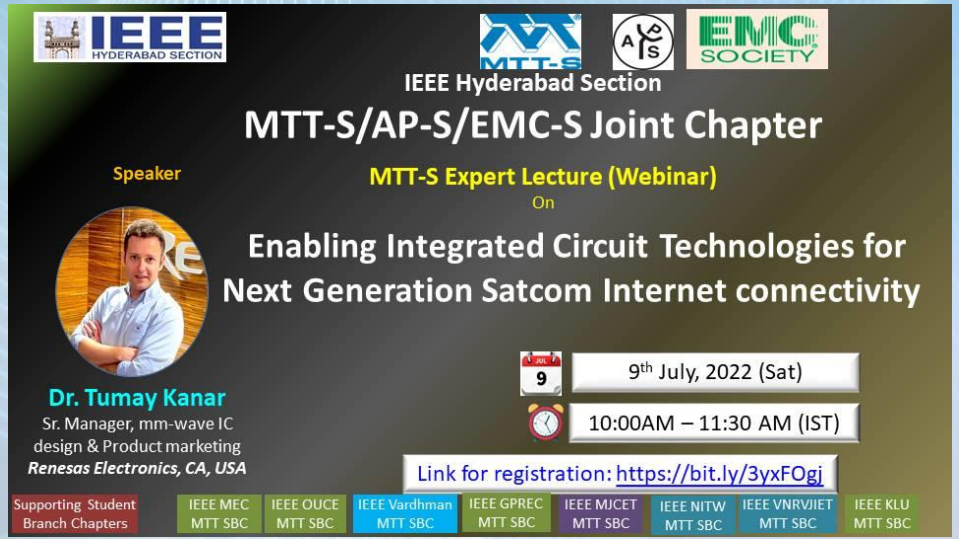
Expert Lecture by Dr. Tumay Kanar



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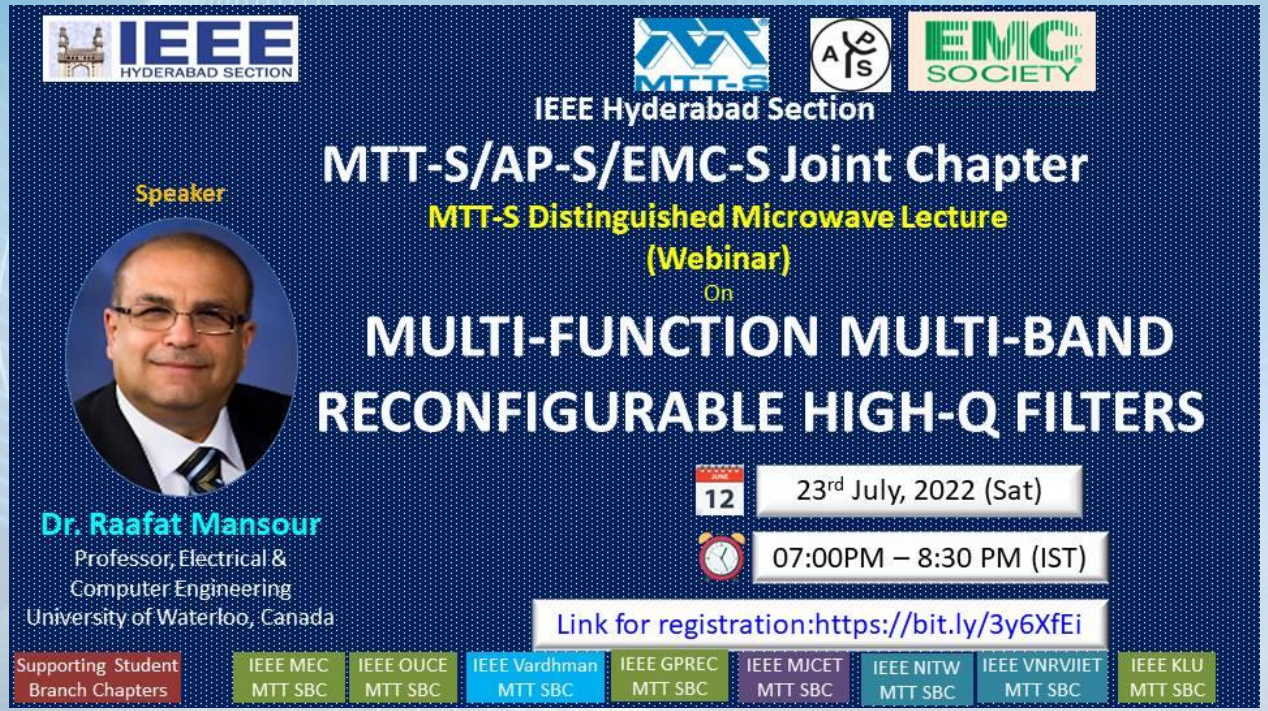
MTT-S DML Talk by Prof. Raafat Mansour



MTT-S MHz to THz Community

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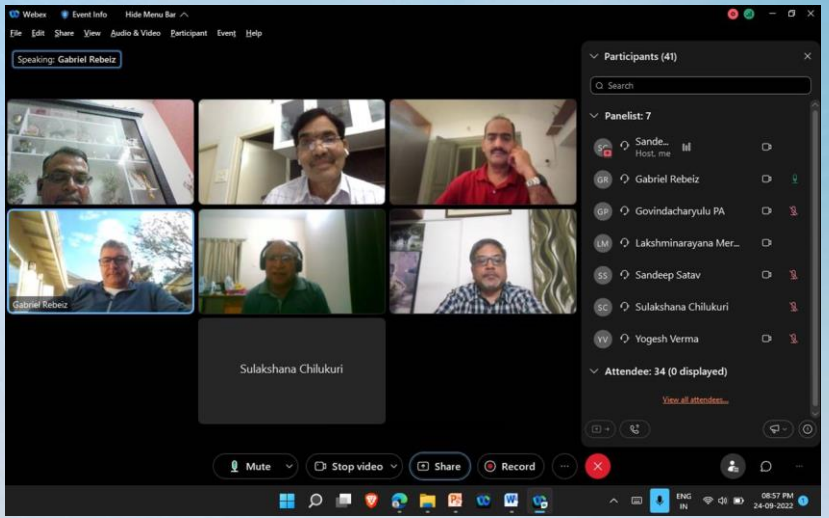
Expert Talk by Prof. Gabriel Rebeiz



MTT-S MHz to THz Community

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Expert Lecture by Prof. Jaume Anguera

IEEE Hyderabad Section

IEEE Hyderabad Section

MTT-S/AP-S/EMC-S Joint Chapter

MTT-S Expert Lecture (Webinar)

On

Antenna Booster Technology: from Fundamentals to Applications

Speaker

Dr. Jaume Anguera

Associate Professor, Universitat Ramon Llull, Barcelona, Spain

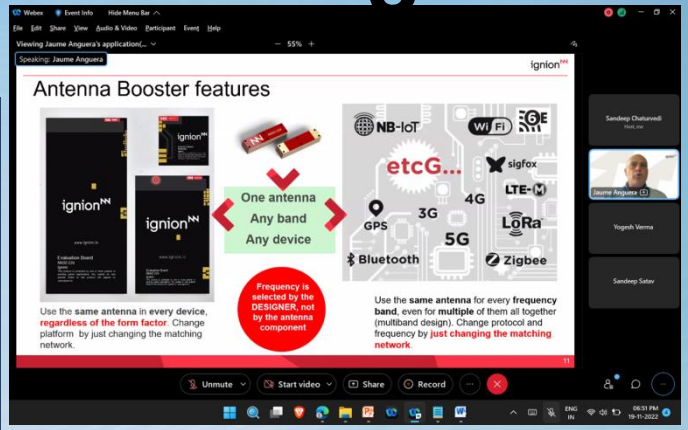
Founder and CTO Ignion

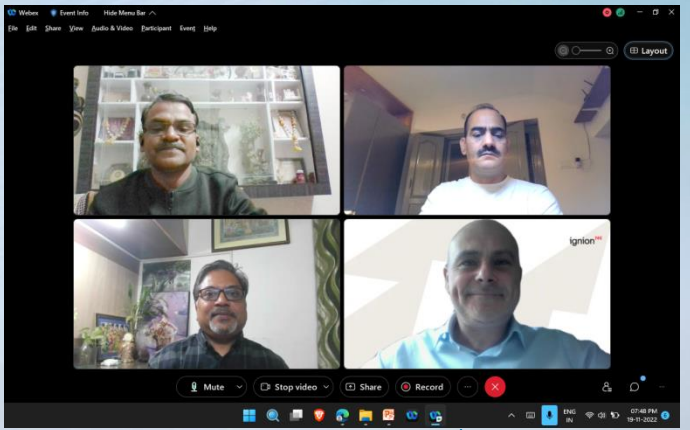
19th Nov, 2022 (Sat)

06:30PM – 8:30 PM (IST)

Link for registration: https://bit.ly/3tpYcEA

Supporting Student Branch Chapters: IEEE MEC MTT SBC; IEEE OUCE MTT SBC; IEEE Vardhman MTT SBC; IEEE GPREC MTT SBC; IEEE MJCET MTT SBC; IEEE NITW MTT SBC; IEEE VNRVJIET MTT SBC; IEEE KLU MTT SBC; IEEE VITAP MTT SBC; IEEE BVRITN MTT SBC





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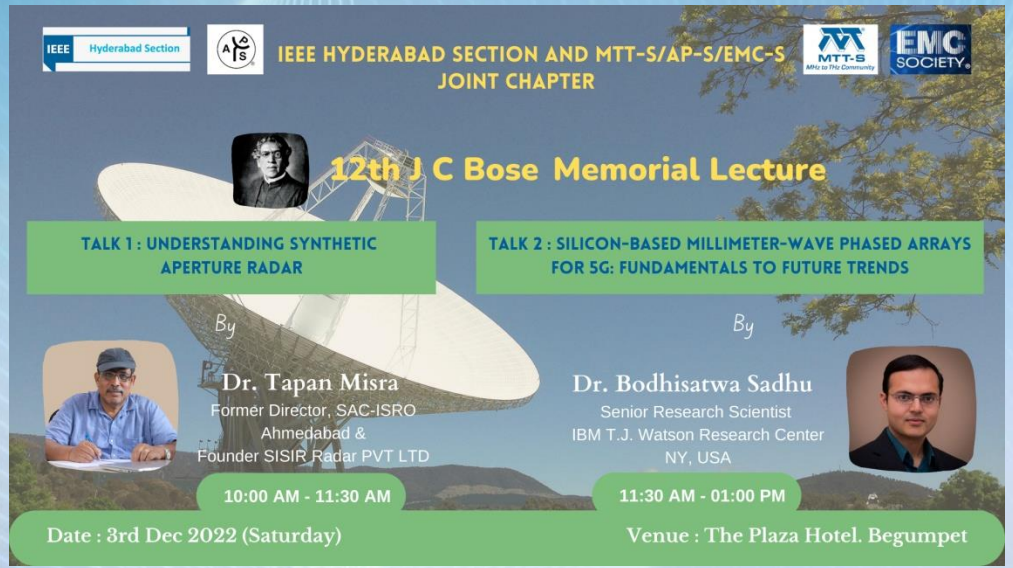
12th JC Bose Memorial Lecture



MTT-S MHz to THz Community

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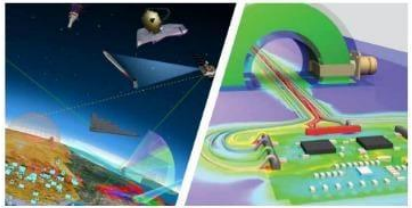
Industry Expert Talk by Dr. Charlotte Blair

IEEE Hyderabad Section | MTT-S | EMC Society | Ansys

RF & Microwave Applications in Aerospace & Defence: Challenges and Opportunities

Date: December 09, 2022 (Friday)
Time: 17:30 to 19:30 IST
Venue: Hotel Shubham Prestige - Karmanghat Plot no 6, 7,8, Nirmalanagar Colony, Sri Hanuman Nagar Colony, Hanuman Nagar, Kharmanghat, Telangana 500079



In the area of Communication and Radar, aerospace and defence technologies have been years ahead of other industries and common applications. **Operational requirements along with mitigations towards interference and jamming make the system more complicated** and it is often made difficult to meet the **stringent MIL standards.** Reliable operations of Communication and Radar System **require high-quality RF components and Antenna modules along with Digital Front End systems.** Design and development of such systems in a short span of time is always a challenge to designers. Even with MIL-qualified components, the system often fails while integrating with vehicles such as **drones, defence UAVs, aircrafts, missiles, satellites,** etc. Another set of challenges arises while conducting the flight test and identifying the reason for **communication blackout or abnormality in the performance.**

Ansys offers a set of tools that can help designers to **develop and validate the product virtually** before going for expense prototype testing. **Using Digital mission engineering,** the system integrator can validate its performance over the mission goal without over-the-air testing [communication link, Radar detections, EOIR, etc]. Ansys enables a **program acceleration of 6x, with 30% improvement on maintenance cycle-times and acquisition labour efficiency**

The event will address some of the **key challenges and opportunities** in the field of electromagnetics for Aerospace and Defence. It will bring together some of the most **distinguished scientists, technologists, and leaders** from this domain. The event will also showcase **different case studies in this sector specific to RF and Microwave applications.** Attendees will also get a chance to interact with the esteemed speakers and fellow experts.

Invited Expert

Charlotte Blair, PhD. is a Technical Support Manager for ANSYS Inc. She received her BS in Electrical Engineering at Rutgers-College of Engineering and her MS and PhD. in Electrical Engineering from New Jersey Institute of Technology. She has supported electromagnetics simulations using industry known tools for over fifteen years. Her real world experience extends from the design of laser diode transmit modules for Lytel/Lockheed to design of filters for wireless communications applications at Celwave/RFS. She is a professional, self-motivated team player committed to excellence with hands-on RF, microwave, and laser-optic experience; strong field service, customer service, project management and communication skills.

With Maryam Rahmani, Charlotte served as the Technical Co-Chair for the 2016 and 2017 IEEE R1 & R2 Women in Engineering (WIE) Forum East and as Conference Chair in 2018. Charlotte also serves as the IEEE Connecticut Section Chair for the local Microwave Theory and Techniques Society (MTT-S) and WIE Chapter as well as the IEEE Region 1 Women in Engineering Chair.

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VNRVJIET MTT SBC Inauguration and Panel Discussion on “Clearing the air on 5G interference on avionics safety and impediments in 5G implementation”

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Future Plans

Setting up Microwave Experience Labs in all the associated Student Branch Chapters

Setting up RF& Microwave Skill Development Centre (Comprising of Simulation, Fabrication and Measurement facilities)

Initiating inter-chapter meet-ups (meet up moves from one chapter to another once every month, may be 2nd Sunday of every month)

Stepping of SIGHT/COPE/STEM activities to cover more rural/remote places of Telangana/Andhra Pradesh